# CLINICAL CASE PRESENTATION

DR ASMA AKHTAR
2nd YR PG
MS OBG

- A 32 year old Mrs M.Vijayakumari
- W/O Kanaka Chari,
- R/O Nalgonda,
- House wife belonging to SES class IV.
- G2P1L1 with 9months period of gestation with 1previous LSCS, came on 10/4/17 at 6:30PM.
- LMP=20/7/16
- EDD=27/4/17
- POG =37WKS 5DAYS

# History of Present Pregnancy

She is a booked case with regular antenatal checkups.

- **T1**= uneventful.

  No H/O nausea, vomitings, fever, bleeding per vagina, any radiation exposure or drug usage.

  H/O intake of folic acid regularly.

- **T2**= H/O B/L pedal edema since $5^{th}$ month POG which subsided on taking rest.

  No H/O of headache, blurring of vision, epigastric pain, vomitings, burning micturition, fever, white discharge.

  H/O Inj. Tetanus Toxoid 2 doses taken at $4^{th}$ & $5^{th}$ month.

  Has taken Iron & Calcium supplementation regularly.

  TIFFA scan normal.

- **T3** = H/O B/L pedal edema which subsided on taking rest.

  No H/O headache, blurring of vision, epigastric pain, vomitings, burning micturition, fever, white discharge, pain abdomen, tightness of abdomen, bleeding per vagina or leaking per vagina.

  On regular Iron & Calcium supplementation.

# Menstrual and Marital History

- Age of menarche = 14yrs

  5/30 days cycle, regular

  No dysmenorrhea, or passage of clots

  2-3 pads /day

- Marital life = 4yrs

  NCM

  No OCP’s

  No history of infertility treatment

# Previous Obstetric & Past History

- Conceived spontaneously 1 and ½ year after marriage

  -P1L1 female, 2 years of age, BW- 2.75kgs, LSCS i/v/o CPD.

- No H/O HTN, DM, TB, Bronchial Asthma, Epilepsy, CHD, Thyroid disorders.

  -H/O 1 previous LSCS done 2yrs back.

  -No H/O any other previous surgeries.

  -No H/O blood transfusions in the past.

# Personal History

- Mixed diet
- Normal appetite
- Adequate sleep
- No addictions
- Regular bowel & bladder habits

# Family & Drug History

- H/O HTN in father

- No H/O HTN, DM, TB, Bronchial Asthma, Epilepsy, CHD, Thyroid disorders, infertility, twining & congenital anomalies in family.

- On regular Iron & Calcium supplementation.

-No known drug allergies.

# On Examination

- Pt is conscious , coherent, oriented.

  No Pallor, Icterus, Cyanosis, Clubbing, Lymphadenopathy

  B/L Grade 1 pitting type of pedal edema seen.

  G.C.- fair.

  Temp.- 98.2°F

  PR- 86bpm, regular rhythm and of good volume.

  BP- 120/70 mm Hg in right arm supine position.

  Thyroid , Breast, Spine, Gait – Normal
- CVS- S1S2 heard, no murmurs.
- RS - Normal vesicular breath sounds heard. No added sounds.

# Per Abdomen

- Inspection

- Abdomen is longitudinally ovoid. All quadrants moving equally with respiration. Umbillicus is central and inverted. Stria gravidarum, linea nigra present. Transverse scar present. No sinuses, engorged veins or visible pulsations. All hernial orifices free.

# Palpation

- Abdomen is relaxed
- SFH 38 CMS, AG – 38.5 inches
- Fundal Ht – uterus corresponding to 36 weeks with flanks full
- Fundal grip – Soft, broad, non ballotable structure s/o breech
- Rt umbilical grip – Uniform, curved, resistant structure felt s/o back
- Lt umbilical grip – Multiple knob like structures felt s/o limb buds

# Palpation

- Pelvic grip (1) - hard globular, ballotable structure s/o head.

- Head is floating and partially deflexed corresponding to 37weeks.

- Pelvic grip (2) - hands converging = head not engaged.

- Liqour is adequate clinically.

- No scar tenderness.

# Percussion & Auscultation

- Percussion
- Dull note heard.
- Auscultation
- Fetal heart sound heard.
- 146 bpm in Right spinoumbilical line.

# Per vaginal examination & Pelvic assessment

- P/V - Cervix soft, posterior, long (3/4”).
  Os closed.
  PPVx at high up can be brought upto -3 station.
- Pelvis - SP not with in reach.
  - Sacrum is short & flat.
  - Left spine prominent.
  - Side walls parallel.
  - ISD- average.
  - Outlet- adequate.

# Provisional Diagnosis

- G2P1L1 with 37weeks 5 days POG with 1 previous LSCS with CPD admitted for safe institutional delivery

# Investigations

- BGT – B positive
- Hb – 10.8g%
- Tc – 10,500/cumm
- Pc – 2.75L/cumm
- CUE – N
- TFT – N
- GCT – N
- Serology - NR
- CT, BT - N
- PT - 14 sec
- APTT 28 sec
- LDH – 321 IU/L
- LFT, RFT – N
- NST - Reactive

# Ultrasonography

| Date | POG | EDD |
|---|---|---|
| 19/9/16 | 8-9 weeks | 27/4/17 |
| 12/12/16 | 21weeks 2 days | 22/4/17 |
| 19/12/16 | 22weeks | 24/4/17 (TIFFA N) |
| 20/3/17 | 34-35 weeks | 25/4/17 |
| 7/4/17 | 36 weeks 2 days | 3/5/17 |

BPD - 8.8cms EFW - 2.81kgs

FL- 7.2cms AFI 11-12cms

Placenta anterior US grade lll

# 11/04/17 – 37 weeks 6 days GA

- GC- B/L pedal edema +
- Temp – 98.2 F
- PR – 76/min
- BP – 110/70mmHg
- H/L – NAD
- P/A – uterus 36 weeks size
  relaxed, cephalic
  FHS 142/min
  liquor adequate clinically
  transverse scar +, No scar tenderness
- NST reactive at 6 am & 4 pm
- PAC done for Elective LSCS

# 12/04/17 – 38 weeks GA

- GC- B/L pedal edema +
- Temp – 98.6 F
- PR – 86/min
- BP – 120/70mmHg
- H/L – NAD
- P/A – uterus 36 weeks size
  relaxed, cephalic
  FHS 138/min
  liquor adequate clinically
  transverse scar +, No scar tenderness
- NST reactive at 6:30am.

# 12/04/17- 2 pm

-Patient complained of tightness of abdomen

-P/A- uterus corresponds to 36weeks

irritable 2c (5-10”) 10’

cephalic

FHS + (144bpm)

liqour adequate clinically.

transverse scar +, no scar tenderness

-P/V – Cx soft, ½ inch long, mid position

Os 1 finger loose

- G2P1L1 with 38 weeks of POG with 1 previous LSCS with CPD in latent phase of labour underwent Em. LSCS
- Delivered a live male baby of wt 2.75kgs. APGAR score 8&9 at 3:32pm on 12/4/17

# Intra Operatively

- For sudden onset of bradycardia and hypotension:
- Inj. Ephedrine 30mg IV given @ 4:05-4:20pm
- Inj. Atropine 0.6mg IV @ 4:10pm

# Immediate Post Op

- Temp – 98.4F
- PR – 134/min, regular rhytm, good volume
- BP – 100/70 mmHg
- H/L – NAD
- P/A – Uterus well retracted
- P/V – No active bleed
- B/L – Breasts soft
- AG – 82cms
- U/O – 300ml, clear

# Adviced

- NBM till further orders
- IV Fluids – 2 pints NS with 10 U oxytocin in each, 2 pints RL, 1 pint 5% Dextrose @ 100ml/hour
- Inj. Ceftriaxone 1 gm IV 12$^{th}$ hourly
- Inj. Metronidazole 500mg IV 8$^{th}$ hourly
- Inj. Ranitidine 50mg IV 12$^{th}$ hourly
- Inj. Tramadol IM 12$^{th}$ hourly
- Inj. Fortwin+Phenargan IM at night
- Half hourly monitoring of vitals

# MONITORING CHART

| TIME | TEMP | PR[bpm] | BP[mm Hg] | AG[cm] | UO[ml] |
|---|---|---|---|---|---|
| 5PM | N | 120 | 100/70 | 82 | 380 |
| 5:30PM | N | 118 | 100/70 | 82 | 450 |
| 6PM | N | 108 | 90/60 | 82 | 500[E] |
| 6:30PM | N | 100 | 70/50 | 82 | 50 |
| 7PM | N | 100 | 70/50 | 82 | 70 |
| 7:30PM | N | 98 | 70/50 | 82 | 100 |
| 8PM | N | 102 | 70/50 | 82 | 120 |
| 8:30PM | N | 100 | 70/50 | 82 | 150[E] |
| 9PM | N | 108 | 80/50 | 82 | 100 |

# 12/4/17 - 7pm

- No H/o giddiness, blurring of vision, syncopal attacks, chest pain, palpitations, shortness of breath, sweating, or decreased urine output.
- Temp – N.
- PR – 100 bpm.
- BP – 70/50 mm Hg.
- SPO2-98% at room air.
- AG-82cm.
- Output-adequate.

# Advised

- IVF 1 pint NS @ 125ml/hr
- Foot end elevation
- S. electrolytes
- ECG
- CBP
- Anaesthetist opinion
- General Physician opinion

# 12/4/17 – 8:10pm

- Anaesthetist reviewed the case and advised:
- Foot end elevation
- IVF:NS, RL @ 100ml/hr
- I/O charting
- Monitor HR, BP, SpO2.
- CBP report: Hb 11.5g%
  TC 13000/cumm
  PC 2.3L/cumm.

# 12/4/17 – 8:30pm

- Physicians reviewed the case and advised:
- IVF:NS, DNS @ 75ml/hr, maintain CVP 12mm H2O
- Inj. Dopamine 5mcg/Kg/min titrate according to SBP, target SBP >100 mm Hg
- Strict I/O charting
- S. electrolytes, S.creatinine, D-dimers, CXR, 2DEcho

# 12/4/17 – 9:00pm

- As advised by duty doctor on call:

  EMD opinion

  Zonac suppository stat

  Strict T/PR/BP/AG/UO monitoring
- Sr electrolytes : Na+=132mmol/l

  K+=4.4mmol/l

  cl-=106mmol/l
- Sr creatinine :0.59mg/dl

- Case was taken over by EMD Department for further management at 9:15pm(12/04/2017) and patient was shifted to post natal ward after being stabilised on 18/04/2017 (post op day 06)

# 18/04/2017(POD -6)

- No complaints
- Temp-N.
- PR-80bpm.
- BP-110/80 mm Hg.
- RR-24cpm.
- SPO2-99% at room air.
- I/O-1200/1600 ml.
- Foleys catheter was removed and catheter sample was sent for culture sensitivity.

- ADVICE:
- High protein diet.
- Inj. Ceftriaxone 1 gm IV 12$^{th}$ hourly.
- Inj. Metronidazole 500mg IV 8$^{th}$ hourly.
- Inj Pantoprazole 40mg IV BD.
- Tab Ecosprin 150mg OD.
- Tab Rosuvas 10mg HS.
- Monitor vitals.

# 19/04/17(POD-7)

- No complaints.
- Temp-normal.
- PR-78bpm.
- BP-100/70 mm Hg.
- H/L –NAD.
- P/A –Uterus well involuting.
- Suture removal done- Wound healing well.
- P/V- Lochia normal.

- ADVICE:
- Regular diet.
- Tab Pantoprazole 40mg BD.
- Tab Ecosprin 150mg OD
- Tab Rosuvas 10mg HS.
- Tab Vit c OD.
- Tab Neurokind LC OD.

# 20/04/2017(POD-8)

- No complaints.
- Temp-N.
- PR-67bpm.
- BP-100/70 mm Hg.
- H/L –NAD.
- P/A –Uterus well involuting.
- P/V- Lochia healthy.
- Urine C/S- candida sps isolated.

- Patient was discharged with an advice of:
- Regular diet.
- Tab Pantoprazole 40mg BD.
- Tab Ecosprin 150mg OD.
- Tab Rosuvas 10mg HS.
- Tab Vit c OD.
- Tab Neurokind LC OD.
- Avoid strenous exercise.
- Adviced contraception after 6 weeks.
- Exclusive breast feeding.
- Immunization of baby as per schedule.
- Review with cardiologist after 1 week.

# SUMMARY

- 32yrs old G2P1L1 with 1 previous LSCS was admitted on 10/04/2017 for safe institutional delivery.
- She underwent Em. LSCS on 12/04/2017 on account of onset of labour and CPD.
- During the immediate postop period she developed hypotension and tachycardia, the cause for which was not known.
- After Cardiology and EMD referral, patient was apparently diagnosed with peripartum cardiomyopathy and was managed accordingly.
- She was discharged satisfactorily after suture removal on POD-8.

# THANK YOU

- 12/4/17 at7PM

  Temp-normal

  PR-100BPM,BP-70/50

  SPO2-98% @room  air

  AG-82cm

  Intra op –input-1200ml, output- 300ml

  Post op-input-600ml,output- 275ml

  No increase in AG

  USG twice bedside . No c/o intraperitoneal collection

ADVICE:

1. IVF: 1UNIT NS
2. Serum electrolytes, ecg
3. Foot end elevation , Strict charting
4. Anaesthesia opinion
5. General physician opinion

- 8:10PM ANAESTHESIA

Foot end elevation , IVF: RL,NS@100ML/HR

I/O charting , Monitor HR,BP,SPO2

No h/o giddiness, blurring of vision , syncopal attacks , chest pain , palpitations , shortness of breath , no h/o sweating , no decreased urine output

PHYSICIANS: 2D ECHO , S. ELECTROLYTES , CHEST XRAY , D-DIMERS , S . CREATININE

IVF: NS AND DNS @75ML/HR Maintain cvp greater than 100mmhg

Inj. Dopamine 5micrograms/kg/min titrate according to SBP target SBP greater than 100mmhg

strict i/o charting

- 12/4/17 9pm EMD OPINION

Zonac suppository stat

Strict T/PR/BP/AG/UO Charting

9:15pm EMD:

SOFA=

PR=104BPM, BP=80/60mmhg

SPO2 at RA=88% , BLAE+, RR=

L Infraclavicular crepitations +

S . Electrolytes: Na=132mmol/l ,k=4.4mmol/l,cl=106mmol/l

ABG: PH=7.40, PCO2= 28.2mm hg, PO2=51.8mm hg

HCO3=19.3mmol/l

PaO2/FiO2 = 259

PAO2 – PaO2 = 55.6

(FiO2 = 0.2) at room air.

ECG: ST depression in V5 & V6.

IVC = 1.7cms

2D echo: left ventricular hypokinasia

11pm:

Ckmb – 4.1units /L

Troponin I – negative

1 am:

s.Creatinine - 0.59mg/dl

1pm:

Hb – 11.4gm%

Tlc – 12700/cumm

Pl.count – 3.2 lakhs/cumm

PBA/POMD Rx:

1. Hypotension

a) Inj.Dobutamine 5mcg/kg/min at 3ml/hr continues IV infusion (target MAP >65mm hg)

b) Restrict IV fluids

3. Head end elevation 30degrees

4. O2 inhalation at 6L/min, VPD

5.Non invasive ventilation. (SOS)

- CPAP (10cm of H2O)
- BiPAP 12cm/8cm of H2O

Monitor HR/ BP/ I/o / SpO2

13/4/17 at 12am

HR = 88/min BP = 70/50 mm Hg U/O = 0.5ml/kg/hr

Rx:

Inj noradrenaline 5mcg/min at 2ml/hr (target MAP >65mm hg) dec/inc dose

Inj.Dobutamine 5mcg/kg/min (i.e 5ml ampule in 100 ml NS at 8-10drops/min micro drops)

1am:

Inj.Noradrenaline dose increased from 2ml to 4ml/hr

2am:

PR – 76bpm

BP – 80/50 mm hg

U/O – 50ml/hr

Inj.Noradrenaline 5mcg/min at 8ml/hr

3am repeat ECG done

7am: anethesia notes

PR – 102bpm I/O = 2000/1070 ml

BP – 94/66 mm hg

SpO2 – 100% at 4l of O2

CVS – s1s2 heard

Rs – BAE+, clear

P/A – soft, bowel sounds +

Adv:

- Foot end elevation
- IV fluids NS&RL at 100ml/hr
- Inj.Noradrenaline 6ml/hr infusion
- Strict i/o charting
- HR BP SpO2 monitoring

6:30am – EMD

Arterial line inserted (rt femoral artery cannulation- seldinger's technique)

i/v/o continuous hemodynamic monitoring

Adv:

Continous heaprin flush – every ½ hr

Post arterial line:

BP – 85/62mm hg , MAP >65mm hg

13/4/17  POD 1 – P2L2

Pt is conscious , coherent , oriented

Temp. – 98.4F

PR – 110bpm, regular good volume } with

BP – 85/50 mm hg } ionotropic support

CVS – s1s2 heard

RS – BAE + , fine basal crepitations +

P/A – uterus well retracted

P/V – no active bleeding

i/o – 2000/1070 ml

AG – 82cms

BS +, flatus not passed

SpO2 – 100% with 4L of O2

Adv:

1. Restrict IVF

2. Inj.Dobutamine 5mcg/kg/min at 5ml/hr iv

3.InjNoradrenaline 5mcg/kg/min at 6ml/hr iv

4.Inj.Monocef 1gm/iv/BD

5. Inj.Metrogyl 500mg/iv/tid

6. inj.Rantac 50mg/iv/bd

7. inj.Tramadol im/bd

8. Leg exercises

9. Monitor T/BP/PR/AG/UO hrly

10am: EMD

Em.LSCS with hypotention & impending respiratory failure (?acute heart failure syndrome)

HR – 102 BP – 98/66 on inotropic support, s1s2 heard

? Apical hypokinesia+ decr ejection fraction

RR= 22cpm
SpO2= 100% fiO2= 0.5
Lt basal crepts (+)
UO=50ml/hr
Rpt ABG , pH= 7.53
pCO2= 22.3
pO2= 70.4
HCO3=22.2
Monitor IBP, HR,RR, SpO2.
Adv cardiologist opinion.

Rx :

- Post – op LSCS with hypertension -

1. Inj. Norad 20amp in 50 ml NS @ 5ml/hr (inc/dec to MAP>65mmHg)
2. Inj. Dobutamine 5µg/kg/min
3. Restrict IVF to only maintaintainance

- Impending hypoxia-

4. Head end elevation to upto 15-30°
5. o2 supplementation @6l/min

CPAPA- 10cm of H2O if required (SOS)

**11am**

CXR = Veil like opacities in both lung fields suggestive of pleural effusions.

USG Chest = Lt ventrivular dyskinesia

**11.40 am**

On phone with cardiologist :

- CBP
- CkMB
- Toponin- I and T
- ECG
- 2D Echo

**2pm**

Bedside 2D echo= Dilated LA/LV

- Global hypokinesia of Lv
- Severe LV systolic dysfunction EF= 28%
- Severe MR, MR J/A 9.3 sq.cm
- Monopleuritic LV filling pull
- Mild TR, mild to moderate PAH, RVSP = 40 ml
- JVC = dilated and collapsing <50%

C/O: SOB, tingling sensation in both lowerlimbs, palpitations

O/E: Pt is CCC

Temp = 98.6 F

PR = 105/min

BP = 100/60 mm Hg

SpO2= 100% with O2 4l

Lungs= bilateral crepitations

CVS= S1 S2 Heard PSH+

JVP raised

Bilateral pedal edema present

ECG: Sinus tachycardia present , PQwR wave progression

No significant ST wave changes

2D echo : sever LV dysfunction, sever MR

UO=35ml/hr

IMPRESSION : DCMPwith severe LV dysfunction

?peripartum cardiomyopathy

? Ischemic

? Wet beri beri

Adv = serum B12

Daily electrolyte monitoring

Serum creatinine

Cardiac enzymes

Rx :

1. Prop up position
2. NIV – BiPAP for 8 hours
3. Inj. LASIX 40mg IV morning, 20mg IV evening
4. Tab Aldactone 25 mg OD
5. INJ. Carnitar 1g IV OD in 10 ml NS for 3 days
6. Tab. Hopace 2.5 mg OD
7. Tab. Cancar cas 2.5mg 0D
8. Fluid restriction to <1000ml /24 hours

9. Tab. Ecosporin 150 mg OD
10. Tab. Rozat 10 mg @HS
11. Inj. Neurobion forte 5 amp in 500 ml ns iv od for 3 days

**3pm**

- Temp= normal
- PR= 90/MIN
- BP = 100/60 mmHg
- CVS = S1 S2 heard PSM +
- Lungs = BAE +
- B/L Basal crepts +
- P/A = Uterus well retracted
- Gaseous distension present
- AG= 84 cm
- C KMB = 78.4 U/L
- Troponin is negative
- Serum electrolytes = within normal range

**4.50 pm**

- Central line notes
- Rt subclavian vein – seldinges technique
- CXR PA veiw immediately and after 4 hours.

# 14/04/2017 **POD-2** ?DCM ?PPCM

**8AM**

GC Fair

Temp= normal

PR= 80/min

BP= 110/60 mm Hg (on ionotropes)

CVS= S1S2 Heard

Lungs = BAE (+) B/L Crepts (+)

P/A = soft, distension (+)

BS = (+)

AG = 84 cm

Flatus, stools = passed

Input =740

Output = 1345, high coloured

Insensible loss = 700

Na+ = 133

k+ = 3.8

Cl - = 101

UO = >35 ml/ hr

ECG done.

<u>Send –</u>

- Serum B12
- Monitor HR, BP, SPO2, GCS, RR.

Rx:

1. Soft diet
2. Oral fluids <100ml/day
3. Propped up position
4. Inj. Monocef 1g iv BD
5. Inj. Metrogyl 100ml IVBD
6. Inj. Rantac 50mg IVBD
7. Inj. Noradrenaline 5µg/kg/min @1.5ml/hr
8. Inj. Dobutamine 5µg/kg/min
9. Inj. Lasix 40mg IV morning and 20mg evening
10. Tab. Aldactone 25mg OD
11. Tab. Ecosprin 150mg OD
12. Tab. Rosal 10mg @HS
13. Inj. Neurobion forte 5 amp in 100 ml NS IV OD
14. NIV BiPAP for 8 hours and intermitten CPAP
15. O2 inhalation @6l/min via VPD.
16. CPAP 10 cm H20 2$^{nd}$ hourly.

**9AM**

- SPO2= 95% WITH 0.4 fiO2
- RR= 22cpm
- pH= 7.47
- Pco2= 24.2
- Po2=76.1
- HCO3 = 20.3
- BE = 5.0
- PaCO2= 190↓↓
- PAO2 – PaO2= (285- 30 )- 76.10= 179 ↑↑

**8PM**

- Inj. Norad 0.06µg/kg/min
- Inj. Dobutamine 6µg/kg/min
- CVP= 15-12 cm H2O
- ECG = sinus tachycardia with RR ST↓ in V4-V5, V3-V6
- HR= 94/min
- BP= 114/62
- Spo2 =100%
- RR= 21 cpm, not in distress.

# 15/04/2017 **POD-3**

GC Fair

Temp= normal

PR= 74/min

BP= 100/60 mm Hg (on ionotropes)

CVS= S1S2 Heard

Lungs = BAE (+) B/L Crepts (+)

P/A = soft, uterus well involuting.

P/V = lochia healthy.